REMARKS

Claim 30 is cancelled without prejudice or disclaimer, thereby rendering moot the objection under 37 CFR 1.75(c). Claim 48 was objected to.

Claims 27-33, 35-38, 40, 41 and 43-45 have now been rejected under 35 USC 102(e) as being anticipated by the newly cited Tafazolli et al. (US 2003/0174731, "Protocol Stacks"). Claims 34, 39, 42 and 46 are rejected under 35 USC 103(a) as being unpatentable over Tafazolli et al. in view of Pavan et al. (US 6,801,943, "Network Scheduler for Real Time Applications"). These rejections are respectfully disagreed with and are traversed below.

At the outset it is not admitted that the teachings of Pavan et al. are in "an analogous art" to the teachings of Tafazolli et al. Tafazolli et al. purport to disclose a protocol stack architecture that incorporates active programming interfaces capable of supporting reconfiguration of the stack. The stack has a plurality of layers (pro-layers) and a plurality of object-oriented interfaces (pro-interfaces) whose respective functionalities are defined by layer classes and programming interface classes. Execution of the functionalities is controlled by thread objects. Pavan et al. purport to disclose a packet-based network scheduler that is interposed between real-time applications and a network As such, it is clearly not admitted that one skilled in the art would look to the prioritized packet queues that are used in the Pavan et al. network scheduler for inclusion in the protocol stack architecture of Tafazolli et al. Further in this regard, a word search of Tafazolli et al. finds no occurrences of "packet", "scheduler", "schedule", "queue" or "buffer". As such, it is not admitted that there is any suggestion or motivation to combine the prioritized packet queues of the network scheduler of Pavan et al. with the protocol stack architecture of Tafazolli et al.

Turning now to the rejection under 35 USC 102(e), and by example, when rejecting claim 32 the Examiner references paragraph [0094] of Tafazolli et al. What is actually stated in paragraph [0094] is te following:

> To assess proper functionality of programming interfaces, a set of <u>QoS related messages</u>, methods and classes has been defined and organised in a class library. The motivation for choosing <u>QoS signalling</u> as a test case has been the increasing complexity of interactions and variety of QoS demands expected in future generations of mobile networks, when users will be able to request mixed services (i.e. voice/video/data and other Internet services). Aurrecoechea et al ("A survey of QoS Architectures", ACM/Springer Verlag Multimedia Systems Journal, Special Issue on QoSX Architecture, Vol 6, No. 3, pp138-151, May 1998) compare a number of different QoS architectures and discuss their particular features. It is stated that most QoS architectures merely consider single architectural levels rather than the end-to-end QoS support for multimedia communications. Furthermore, it is pointed out that QoS management features should be employed within every layer of the protocol stack and QoS control and management mechanisms should be in place on every architectural layer.

Clearly, the quality of service (QoS) referred to here simply relates to the QoS requirements of the mobile network for which the protocol stack architecture is configured.

Claim 32 has been cancelled without prejudice or disclaimer and rewritten into claim 27 such that claim 27 now recites in part:

> said processor further configured to interface with at least one of an upper protocol layer and a lower protocol layer on the basis of the configurable protocol engine configuration and to execute functions for processing data in accordance with the configurable protocol engine configuration, **where individual ones of the functions are selected for inclusion in the communication protocol on the basis of at least a level of service provided by the function and at least one cost factor related to the function.**

Support for the amendment can be found in the specification at least in paragraphs [0107] through [0117], and in Figure 10, of the corresponding published US Patent Application US 2008/0039055 A1.

For example, what is stated in the specification (in part) is as follows:

> After specifying the configuration information and delivering it to CPE the available hardware resources and the parameters concerning the used network are analyzed and maximum values for e.g. three cost factors are set. The cost factors are numerical values that present the relative influence on the load that the created protocol assembly puts on the available hardware resources and on the used network.
>
> The three cost factors are defined for each function as follows: D for overhead traffic, P for processor power, and M for memory. All of those are described as an integer value from 1 to 10, with 1 corresponding to the lowest relative influence. .....
>
> In addition to the cost factors, a Q-value is defined for each function. It specifies the level of service the function is capable of providing. For example, an error detection service can be provided with a parity bit calculation function or with a CRC (Cyclic Redundancy Check) function. With CRC, more errors can be detected from the received data. Therefore the CRC function has a higher Q-value than the parity bit calculation function.
>
> Each function contains e.g. six different parameters: name, three cost factors M, P, and D, the level of service Q, and finally the function dependencies specifying the other functions required in the protocol assembly with the one in question.
>
> The selection of functions to implement the required services is done in the following manner for each of the services: The Qmin value of the service is compared to Q-value (Qi) of the functions capable of providing the service. Next, the cost factor values (Di, Pi, Mi) of the functions having
>
> $$Qi \geq Qmin \qquad (1)$$
>
> are compared to the maximum values for the three cost factors (Dmax, Pmax, Mmax), which describe the limit that should not be exceeded by any protocol function that is included in the created

> protocol assembly. The comparison is done by calculating the total difference
>
> $$Ti = Dmax - Di + Pmax - Pi + Mmax - Mi \qquad (2)$$
>
> for the protocol functions satisfying (1). The function having the highest Ti is then selected to be included in the assembly. If the selected function requires also other functions to be included in the assembly to implement the service, the selection of these functions is done in the same manner.
>
> Figure 10 illustrates the above function selection process. In this example, a service can be implemented by including one of three functions, Function1 1002, Function2 1004, and Function3 1006, in the protocol assembly. First, levels of service factors (Q) are checked, and the Function1 1002 is dropped as being not able to provide an adequate service level. Then the cost difference (T) according to (2) is calculated on the basis of which function2 1004 is finally selected due to a larger difference.

Clearly, the <u>mobile network QoS discussion found in paragraph [0094] of Tafazolli et al. does not disclose or suggest the subject matter found in claim 32, or that is now found in the independent claim 27</u>.

The other independent claims have been amended in the same or a similar fashion. More specifically, claims 38 and 41 each now recite in part:

> where a function is selected for inclusion in the communication protocol on the basis of at least one of a service level provided by the function and at least one cost factor related to the function.

Claim 45 has been cancelled without prejudice or disclaimer, and independent claim 43 now recites in part:

> said processor further configured to select a number of functions from a plurality of functions in accordance with the configurable protocol engine configuration in order to implement a protocol, where functions are selected for inclusion in the protocol on the basis of at least one of a service level provided by the function and at least one cost factor related to the function.

The independent claims as now presented for examination are clearly allowable over the protocol re-configuration platform disclosed by Tafazolli et al., which contains no similar disclosure or suggestion of such disclosure.

In that the independent claims are all allowable, then all claims that depend from these claims are also allowable for at least this one reason (again without admitting that the Pavan et al. disclosure is in an "analogous art" as Tafazolli et al., as stated by the Examiner).

The entry of the foregoing amendments are respectfully requested, as the subject matter added to the independent claims is based on subject matter already considered and searched by the Examiner. That is, no additional search by the Examiner should be required.

Alternatively, if the Examiner does come to the conclusion that another search would be required, based at least on the clarification above of the "service level", then the Examiner is respectfully requested to at least withdraw the finality of the most recent office action, and issue another office action if the Examiner believes that one is warranted.

It is submitted that claims 27-29, 31, 33-44 and 46-49 are novel over the references cited and applied by the Examiner, that these claims are allowable, and that this patent application is in condition to be passed to issue. An early notification of same is earnestly solicited.

Respectfully submitted:

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8/5/09 J. Droniak

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